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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/777,076	02/05/2001	Miklos Stern	7157-210	9554

27383 7590 02/13/2007  
CLIFFORD CHANCE US LLP  
31 WEST 52ND STREET  
NEW YORK, NY 10019-6131

EXAMINER
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LE, THIEN MINH

ART UNIT	PAPER NUMBER
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2876

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/13/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	09/777,076	STERN ET AL.	
	Examiner	Art Unit	
	Thien M. Le	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2006.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 211-234 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 211-234 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

The response filed on 11/1/2006 has been entered. Claims 1-210 have been canceled. Newly added claims 211-234 are presented for examination.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 211, 213, 214-215, are rejected under 35 U.S.C. 102(b) as being anticipated by Kiang et al. ("Micromachined Microscanners For Optical Scanning" by Kiang et al., SPIE 3008, 82; herein after referred to as Kiang).

Regarding claims 211, Kiang discloses laser barcode scanners comprising laser diodes and one or more micromachined scanning mirrors (pg. 82-87). As can be seen, Kiang discloses the claimed invention.

Regarding claim 213, Kiang discloses micromachined scanning mirrors that are made of silicon (pg. 85).

Regarding claim 214, Kiang discloses the method of fabricating micromachined scanning mirror using a silicon wafer substrate that would embrace the limitation set forth in this claim (pg. 85).

Regarding claim 215, figure 7 of Kiang show an actuated micromirror that is driven electrostatically (pg. 88).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 2876

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 212, 217-218 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang et al. ("Micromachined Microscanners For Optical Scanning" by Kiang et al., SPIE 3008, 82 (1997); herein after referred to as Kiang) in view of Ikeda et al. ("Two-Dimensional Miniature Optical-Scanning Sensor with Silicon Micromachined Scanning Mirror, SPIE 3008, 111 (1997); herein after referred to as Ikeda.

Regarding claims 212, 219, 229 and 231 see the discussions regarding claim 211. It is noted that Kiang fails to specifically disclosing/showing specifics of a bar code scanner using a micromachined scanning mirror. However, this claimed limitation is not new. Reference to Ikeda is cited as an evident showing a bar code scanner using a micromachined scanning mirror having a light source, a photodetector and electrical circuit for signal processing (pg. 112-113, figure 4). It would have been obvious to incorporate the arrangement as taught by Ikeda in the system as taught by Kiang. The modification is merely a design variation that is well within skill levels and expectations of an ordinary skilled artisan in light of Ikeda's teachings.

Regarding claims 216, 228 and 233, see the discussions regarding claim 211. The claim differs in calling for a pair of torsional hinges. It is noted that Ikeda further shows a torsional spring and the method utilizing both twisting motion and bending motion modes of the torsional spring. It would have been obvious to incorporate the torsional spring as taught by Ikeda in the system as taught by Kiang. The modification

extend Kiang's teaching to other scanning modes wherein the mirror can rotate/vibrate along different rotational axes. It is also noted that the combined teachings of Kiang and Ikeda does not include a pair of torsional hinges. However, with the lack of recitations in the claims of how the torsional hinges offer different movement, the examiner is of the view that it would have been obvious to replace a single torsional spring with a pair of torsional springs (hinges). The replacement of a single spring with a pair of spring offer more stability of rotation about a rotation axis.

Regarding claims 220-221 and 230, see the aforementioned discussions regarding claims 213-214.

Regarding claims 217, 223, 227, 232 and 234, see the aforementioned discussions regarding claims 215.

Claims 222, and 224-226 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kiang et al. ("Micromachined Microscanners For Optical Scanning" by Kiang et al., SPIE 3008, 82 (1997); herein after referred to as Kiang) in view of Ikeda et al. ("Two-Dimensional Miniature Optical-Scanning Sensor with Silicon Micromachined Scanning Mirror, SPIE 3008, 111 (1997); herein after referred to as Ikeda) and further in view of Schultz (Schultz – 5,587,577).

Regarding claims 222 and 224-226, see the discussions regarding claim 218. The claims differ in calling for the combination of a bar code scanner and a data terminal. However, this claimed limitation is not new. Reference to Schultz is further cited as an evidence showing the conventionality of the method and system combining

the functionalities of a scanner and a data terminal. Specifically, Shultz discloses a modular scanner with handheld data terminal. It would have been obvious to incorporate Shultz's teaching of a hybrid system in the system as taught by Kiang/Ikeda. The modification extends the applications of Kiang/Ikeda systems to working environments which require the use of both a scanner and a hand held data terminal (PDA). The modification also increase the overall versatility aspects of the system.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien M. Le whose telephone number is (571) 272-

Art Unit: 2876

2396. The examiner can normally be reached on Monday - Friday from 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
**Le, Thien Minh**  
**Primary Examiner**  
**Art Unit 2876**  
**January 9, 2007**